

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****In re United States Patent Application of:****Docket No.: 4115-197****Applicants: SCHREIER, Harold J., et al.****Conf. No.: 6432****Application No.: 10/588,256****Art Unit: 1724****Date Filed: July 29, 2006****Examiner: Not Yet Assigned****Title: DISSIMILATORY SULFATE
REDUCTION AS A PROCESS
TO PROMOTE
DENITRIFICATION IN
MARINE RECIRCULATING
AQUACULTURE SYSTEMS****Customer No.:****23448****FIRST CLASS MAIL CERTIFICATE**

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Barbara Owens

November 1, 2006

Date of Mailing

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U.S. PATENT APPLICATION NO. 10/588,256**

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Pursuant to 37 C.F.R. §1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached Information Disclosure Statement forms PTO/SB/08a and PTO/SB08b. One copy of each foreign patent and each non-patent reference are attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No certification or fee is required.

Respectfully submitted,



Steven J. Hultquist
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Enclosures:

IDS Forms PTO/SB/08a and PTO/SB/08b [3 pg(s).]

Foreign Patent References [59 pgs.]

Non-Patent References [107 pgs.]

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(Use as many sheets as necessary)

Sheet

1

of

3

Complete if Known

Application Number	10/588,256
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Filing Date	7/29/2006
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First Named Inventor	Schreier et al.
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Art Unit	1724
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Examiner Name	Not Yet Assigned
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Attorney Docket Number	4115-197
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U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
/FP/	AC	JP - 2002-159992 - A	06-04-2002	Boku, Wanchoru, et al.		√
/FP/	AD	WO - 98/07664 - A1	02-26-1998	Van Loosdrecht, Marinus Cornelis Maria, et al.		

Examiner Signature	/Fred Prince/	Date Considered	03/26/2008
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				Application Number	10/588,256
				Filing Date	7/29/2006
				First Named Inventor	Schreier et al.
				Art Unit	1724
				Examiner Name	Not Yet Assigned
Sheet	2	of	3	Attorney Docket Number	4115-197

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
/FP/	AE	DAIMS, H., ET AL., Novel Nitrospira-like bacteria as dominant nitrite-oxidizers in biofilms from wastewater treatment plants: diversity..., Water Science and Technology, 2000, Page(s) 85-90, Volume 41, Number 4-5	
/FP/	AF	HOVANEK, T.A., ET AL., Comparative analysis of nitrifying bacteria associated with freshwater and marine aquaria, Appl. Environ. Microbiol., August 1996, Page(s) 2888-2896, Volume 62, Number 8	
/FP/	AG	KLOEP, FRANK, ET AL., Performance and microbial structure of a nitrifying fluidized-bed reactor, Wat. Res., January 1, 2000, Page(s) 311-319, Volume 34, Number 1	
/FP/	AH	MEGONIGAL, J.P., ET AL., Anaerobic metabolism: Linkages to trace gases and aerobic processes, Biochemistry (W.H. Schlesinger, Ed), 2004, Page(s) 359-361, Publisher: Elsevier-Pergamon, Published in: Oxford, UK	
/FP/	AI	O'DONNELL, ANTHONY G., ET AL., 16S rDNA methods in soil microbiology, Current Opin. Biotech., June 1999, Page(s) 225-229, Volume 10, Number 3	
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/FP/	AK	RUSTEN, BJØRN, ET AL., Moving bed biofilm reactors and chemical precipitation for high efficiency treatment of wastewater from small..., Water Sci. Tech., 1997, Page(s) 71-79, Volume 35, Number 6	
/FP/	AL	RUSTEN, B., ET AL., Pilot testing and preliminary design of moving bed biofilm reactors for nitrogen removal at the FREVAR wastewater..., Water Sci. Tech., 2000, Page(s) 13-20, Volume 41, Number 4-5	
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/FP/	AN	TAL, YOSSEI, ET AL., Characterization of the microbial community and nitrogen transformation processes associated with moving bed..., Aquaculture, January 10, 2003, Page(s) 187-202, Volume 215, Number 1-4	

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